

Docket No. 217 – Development and Management Plan Inspection

Northeast Utilities Service Company Certificate of Environmental Compatibility and Public Need for the construction of a 345-kV electric transmission line and reconstruction of an existing 115-kV electric transmission line between Connecticut Light and Power Company's Plumtree Substation in Bethel, through the towns of Redding, Weston, and Wilton, and to the Norwalk Substation in Norwalk, Connecticut.

Date: January 19, 2006

Inspector: Diana Walden

Location: Overhead Line (Composite 345kV and 115kV Gallows Hill to Archers Lane) and (345kV H-Frame Hoyts Hill to Gallows Hill)

Storm/

Rain Event: Approximately 1.97" of precipitation fell mostly in the form of rain over 1/13-1/14 with another 1.10" on precipitation on 1/18 as reported by NOAA.

Areas of Inspection	Observation	Recommended Action
Access Roads and Adjacent Roadways	- The Composite ROW work is accessible from Gallows Hill Road by an existing trail path with a swing gate, an approved access path in from the east of the ROW, an access road passing through the Archers Lane substation, and an area cleared from the station to the ROW. 1/19/06	- With freezing and thawing periods, additional measures for stability should be considered if there are still access needs. If any areas still have ruts at the end of the work, it will have to be regraded to return to original conditions. 12/8-1/19/06
Composite	-Erosion controls were overtopped by turbid water at the 2 nd wetland crossing on the access road. This is the most water we have seen at this spot since inspections began. 1/19/06	-Install additional clean stone in the crossing. Attempt to strengthen silt fence although water was overtopping it. Analysis is currently ongoing to determine whether the water is a result of atypical precipitation or was exacerbated by construction. 1/12/06.
345kV H-Frame	- See erosion control section for more details. 1/19/06	
	- Construction of access roads continues in the vicinity of Hoyts Hill. Several wetland crossings have been matted well between here and Chestnut Ridge. 1/19/06	-Sections of silt fence were installed on the approach to the mats. See erosion control section for details. 1/19/06
	-The access road from Bethel Reservoir remains in use. A	- The crossings are very well constructed and the stream was flowing clear. Watch for creation of any ruts as they

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	<p>number of stream/wetland crossings are present in this section with mats well in place. 1/12-1/19/06</p> <p>-Sediment tracking was noted along Chestnut Ridge Rd. from the access road on the ROW. 1/19/06</p>	<p>will need to be restored to original condition. Provide erosion controls on the approach to the mats as necessary to prevent sedimentation.1/4-1/19/06</p> <p>- Install additional stone here at the access point and sweep the street as necessary. 1/19/06</p>
<p>Foundation construction</p> <p>Composite</p> <p>345kV H-Frame</p>	<p>-Cables were set up at several old wooden structure in preparation for removal. 1/4-1/19/06</p> <p>- A large amount of sediment was noted left where the structure foundation was installed adjacent to Archers Lane. It has overwhelmed the silt fence and started to migrate downhill.1/19/06</p> <p>- Clearing and access road construction/mat installation continued in the Bethel reservoir section. 12/30-1/19/06</p> <p>- In the Chestnut Ridge/Hoyts Hill section, excavations were being drilled and foundations were being installed at several locations. (proposed structures #8,#7, #6) 1/19/05</p> <p>- Test drilling was also occurring at other pole locations. 1/19/06</p>	<p>-None at this time. 1/19/06</p> <p>- See erosion control section for recommendations. 1/19/06</p> <p>- None at this time.1/19/06</p> <p>-Large amounts of sediment were present at proposed structure #6 where they were excavating. See erosion control section for recommendations. 1/19/05</p> <p>- Make sure wetland crossings and access to these locations are also well in place. 1/19/05</p>
<p>Erosion and Sediment Controls (includes inspection within 24 hours of a storm event)</p> <p>Composite</p>	<p>- Following the rains, water had overtopped the silt fence at the 2nd wetland crossing along the Archers Lane access road. The controls were overwhelmed and turbid water was in the wetland. 1/19/06.</p> <p>- The 1st wetland crossing,</p>	<p>- Additional clean stone here will help with some of the turbidity but with water overtopping the fence, control will be difficult. Site analysis is ongoing to evaluate these water issues. 1/19/06</p> <p>- Solutions to prevent</p>

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<p>Erosion controls continued</p> <p>345kV H-Frame</p>	<p>immediately within the Archers Lane site before the access road opens into the ROW shows more issues with sedimentation/turbidity from road run-off. A thin layer of fine sediment was noted in the leaves under the water. 1/4-1/19/06</p> <ul style="list-style-type: none"> - Several washout spots along the silt fence were noted where piles of sediment has accumulated. 1/19/06 - The 2nd structure in from Gallows Hill has a bare soil/boulder slope adjacent to the wetland with controls still well in place. 11/23-1/19/06. - The stockpile from structure #9 foundation installation was still present. Silt fence was down in one corner and turbid water was noted down the driveway. 1/19/06 - Mats for stream/wetland crossings are well installed throughout this section. Silt fence sections are present in some spots but make sure they are extended to the edge of the mat and are placed at all four "corners" of the approach to the mats. 1/19/06 - Silt fence was well installed near the horse farm and between structures #7-8. It had visibly retained sediment. 1/19/06 - A large amount of sediment resulted from excavation for structure #6. Additional silt fence was installed to control the sediment but it was placing strain on this outer barrier as well. 1/19/06 	<p>sedimentation and turbidity in the ponded water here need to be investigated and implemented. Cleaning out the sediment in the stone may help. 1/4-1/19/06</p> <ul style="list-style-type: none"> -Potential run-off issues from the slopes of the transition station are also being evaluated. 1/19/06 - Transition and overhead contractors need to repair fence and pull back sediment. 1/19/06 - The area should be regraded, to final contours and restored when feasible. 12/1-1/19/06 - Repair the fence and remove the stockpile when feasible. Consider installing additional stone here to prevent turbidity if this area will be used often for access. 1/19/06 -Extend fence sections to the mat between structures #6-7 and add a section at the NW corner of the mat. 1/19/06 - None at this time- continue to monitor. 1/19/06 - Strengthen and maintain the silt fence here and pull back this soil ASAP since the sediment and controls are already in a wetland area. 1/19/06

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	<ul style="list-style-type: none"> - Dewatering discharge here was sent to a small area of controls which was overwhelmed by the sediment. It tracked through the woods to a wetland at the base of slope. 1/19/06 - Stockpiles at structure #8 were present as a result of excavation for the foundation. 1/19/06 - Erosion controls may be needed at the approach to wetland crossings in the Bethel reservoir portion as well. 1/19/06 -Silt fence was recommended at the structure where clearing and the access road had ceased in this portion of the ROW. 1/12-1/19/06 	<ul style="list-style-type: none"> - Efforts were made to dewater in an upland area but the steep slope and inadequate controls resulted in migration of the sediment. Install a more effective detention here- potentially a filter bag. 1/19/06 Silt fence should be installed downgradient if these remain. 1/19/06 -Install controls on the approach to mats to prevent sedimentation as needed. 1/12-1/19/06 -Install fence as necessary. 1/12-1/19/06
<p>Inland Wetland and Watercourse encroachment and mitigation</p> <p>Composite</p> <p>345kV H-Frame</p>	<ul style="list-style-type: none"> -The D&M plan approved stone on geotextile fabric at the wetland crossings had worked well, but at the two areas near Archers Lane water levels were high enough to spill over the silt fence, leading to further turbidity here. 1/19/06 - The rocks at the crossings are also clogged with sediment at this point 1/4-1/19/06 -All streams under the mat crossings were running clear and crossings were well installed. 1/4-1/19/06. - The wetland ruts resulting from accessing and skidding out trees a few weeks ago should be monitored. They do look less severe at this time. 1/19/06 - At the excavation for proposed structure #6, a large amount of mud was contained 	<ul style="list-style-type: none"> - As the access is considered temporary, the stone will be removed when final work ends so the wetlands can be restored. Strengthen/reinforce erosion controls or develop other solutions to prevent additional turbidity. 12/8-1/19/06 Add stone or clean up the crossings. 1/4-1/19/06 -See recommendation in erosion control section.1/4-1/19/06 - If channelization is noted as a result during the spring, the ruts/contours of the area should be repaired if possible. 1/12-1/19/06 - Lack of workspace is an issue here but the erosion controls and mud were within

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	<p>within the silt fence but it was already within the wetland. 1/19/06</p> <p>- Dewatering at this location led to mud tracking down slope to the edge of a wetland. 1/19/06</p>	<p>the wetland. It should be pulled back as soon as possible and controls reinstalled closer to the pole. 1/19/06</p> <p>-Further controls are needed to prevent more serious sedimentation. See erosion control section for details. 1/19/06</p>
State species of concern, threatened and endangered species	<p>- The composite portion of overhead work includes state-listed turtle habitat area. 9/15-1/19/06.</p> <p>-The Eastern box turtle has not been observed since the first sighting and are likely hibernating. 1/19/06.</p>	<p>-Turtles would no longer be active at this time of year. 1/19/06</p>
Vegetative clearing limits (including trees to save or danger trees noted)	<p>- Clearing continues for the H-frame section. Smaller trees and brush are being chipped on site (some chips will be removed) and larger trees are stockpiled and may be utilized by landowners. 12/22-1/19/06</p> <p>- Chips continue to be spread out on the ROW and on the approach to the mats but were not placed in wetlands. 1/19/06</p> <p>- Some trees will be cleared adjacent to the stream to expand the ROW. 1/12-1/19/06</p>	<p>-Keep clearing to what is necessary. The D&M plan states low growing shrubs can remain. 12/22-1/12/06</p> <p>-Efforts to retain mountain laurel and other shrubs were noted. 1/4-1/12/06</p> <p>- Chips spread on the ROW should not be to a depth of more than 3" by the time the growing season is about to begin. 1/4-1/19/06</p> <p>- Stumps will remain and trees will be felled toward the mats to avoid ruts in the stream. 1/12-1/19/06</p>
Dewatering	<p>- Dewatering was needed at the excavation for structure #8. Amounts of water and sediment overwhelmed the few haybales and silt fence that had been placed and tracked down slope to a wetland at the base. 1/19/06</p>	<p>- Release water to the ground only in well vegetated areas if it will not reach any resource areas. Otherwise use a filter bag or containment of some kind. 1/19/06</p>
Blasting	<p>-No blasting has been necessary at this time on the ROW. 1/19/06.</p>	<p>-None at this time. 1/19/06.</p>
Spills and Material Storage	<p>- No drips or leaks were noted</p>	<p>- Continue to keep all vehicles maintained well (i.e. no</p>

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	under any of the vehicles this week. 1/19/06	apparent fluid leaks) if they will be used or stored on site - Keep adequately size fuel kits for worst case scenarios. - Report spills immediately, even if they are being controlled. - Take care not to get carried away and to be vigilant when refueling. Avoid refueling in the areas near the wetlands. Use proper storage for all materials.
Additional Observations		

Next likely scheduled inspection:

Thursday January 26, 2006

I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statements made in this document or its attachments may be punishable as a criminal offense in accordance with Section 22a-6 under Section 53a-157 of the Connecticut General Statutes.

Inspector's Signature:

Diana Walden



(Composite Section): Photo on the left shows a view of the sediment resulting from the installation of the structure adjacent to transition station. Photo on the right demonstrates how the sediment has pushed over the erosion controls. This needs repair as sediment is moving towards the wetland pocket downgradient. 1/19/06



Photo on the left shows the 2nd wetland crossing along the ROW access road where turbid water has overtopped the silt fence. This is the most water we have seen in this area since the project began. Photo on the right is an overview of the access road leading to the 2nd crossing. 1/19/05



Photo on the left shows some of the controls in place at the 1st wetland crossing along the access road from Archers Lane. Photo on the right shows turbid water in the wetland at the 2nd crossing. Controls were overwhelmed by the amount of water and turbidity was resulting. 1/19/06



345kV (H-Frame Section): Photo on the left shows where mats were installed at the larger wetland crossing near the Bethel Reservoir land. Photo on the right shows the stone and silt fence installed on the access road into the ROW. 1/19/06



Photo on the left shows a wetland crossing with mats well installed along the Bethel res. Portion of the ROW. Watch sediment issues and install erosion controls on the approach to the wetland. Photo on the right shows the stream and wetland crossing of Chestnut Ridge Rd. with mats well installed. 1/19/06



Photo on the left is a view of the stockpile remaining at Chestnut Ridge Rd. Silt fence needs repair and turbid water was running down the driveway. Sediment tracking was also noted out into the roadway and additional stone should be installed at the access points. 1/19/06



Photo on the left is a view of a wetland crossing between proposed structures #6 and #7. Mats are well installed and some areas of silt fence were installed as recommended. Make sure controls extend to the edge of the mat. Photo on the right shows one corner where controls were not installed. 1/19/06



Photo on the left is a view of a concrete washout area. Trucks were observed using this lined area. Photo on the right shows the foundation installation at proposed structure #8. Stockpiles in the background of the photo need some erosion controls if they are to remain. 1/19/06



Photo on the left is a view of the excavation for proposed structure #6. Additional silt fence was added when the first fence was overwhelmed. Photo on the right shows a closer view of the mud against the final fence. While the fence is keeping a majority of the mud contained, this area is a wetland and the mud will have to be pulled back and removed. 1/19/06



Photo on the left is a view of the attempt to contain dewatering from proposed structure #6. The area was not sized for the amount of sediment it received. Photo on the right shows the sediment trailing down through the woods to the edge of a wetland at the base of slope. 1/19/06